

3. All other equipment.	a. Whenever maintenance activities require the opening of the equipment.	See 1.a.i. through iii above.		
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TABLE 5 TO SUBPART IIII OF PART 63—REQUIRED ELEMENTS OF FLOOR-LEVEL MERCURY VAPOR MEASUREMENT AND CELL ROOM MONITORING PLANS

Your Floor-Level Mercury Vapor Measurement Plan required by §63.8192(d) and Cell Room Monitoring Plan required by §63.8192(g) must contain the elements listed in the following table:

You must specify in your plan . . .	Additional requirements
<b>Floor-Level Mercury Vapor Measurement Plan</b>	
1. Locations in the cell room where you will measure the level of mercury vapor.	The locations must be representative of the entire cell room floor area. At a minimum you must measure the level of mercury vapor above mercury-containing cell room equipment, as well as areas around the cells, decomposes, or other mercury-containing equipment.
2. Equipment or sampling and analytical methods that you will use to measure the level of mercury vapor.	If an instrument or other equipment is used, the plan must include manufacturer specifications and calibration procedures. The plan must also include a description of how you will ensure that the instrument will be calibrated and maintained according to manufacturer specifications.
3. Measurement frequency .....	Measurements must take place at least once each half day.
4. Number of measurements .....	At least three readings must be taken at each sample location and the average of these readings must be recorded.
5. A floor-level mercury concentration action level	The action level may not be higher than 0.05 mg/m <sup>3</sup> .
<b>Cell Room Monitoring Plan</b>	
1. Details of your mercury monitoring system.	
2. How representative sampling will be conducted	Include some pre-plan measurements to demonstrate the profile of mercury concentration in the cell room and how the selected sampling locations ensure conducted representativeness.
3. Quality assurance/quality control procedures for your mercury monitoring system.	Include a description of how you will keep records or other means to demonstrate that the system is operating properly.
4. Your action level .....	Include the background data used to establish your level.

TABLE 6 TO SUBPART IIII OF PART 63—EXAMPLES OF TECHNIQUES FOR EQUIPMENT PROBLEM IDENTIFICATION, LEAK DETECTION AND MERCURY VAPOR

As stated in Tables 1 and 2 of Subpart IIII, examples of techniques for equipment problem identification, leak detection and mercury vapor measurements can be found in the following table:

To detect . . .	You could use . . .	Principle of detection . . .
1. Leaking vent hoses; liquid mercury that is not covered by an aqueous liquid in open-top containers or end boxes; end box covers or stoppers, amalgam seal pot stoppers, or caustic basket covers not securely in place; cracks or spalling in cell room floors, pillars, or beams; caustic leaks; liquid mercury accumulations or spills; and equipment that is leaking liquid mercury.	Visual inspections	
2. Equipment that is leaking hydrogen and/or mercury vapor during inspections required by Table 2 to this subpart.	a. Auditory and visual inspections	

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To detect . . .	You could use . . .	Principle of detection . . .
3. Level of mercury vapor in the cell room and other areas.	b. Portable mercury vapor analyzer—ultraviolet light absorption detector.	A sample of gas is drawn through a detection cell where ultraviolet light at 253.7 nanometers (nm) is directed perpendicularly through the sample toward a photodetector. Elemental mercury absorbs the incident light in proportion to its concentration in the air stream.
	c. Portable mercury vapor analyzer—gold film amalgamation detector.	A sample of gas is drawn through a detection cell containing a gold film detector. Elemental mercury amalgamates with the gold film, changing the resistance of the detector in proportion to the mercury concentration in the air sample.
	d. Portable short-wave ultraviolet light, fluorescent background—visual indication.	Ultraviolet light is directed toward a fluorescent background positioned behind a suspected source of mercury emissions. Elemental mercury vapor absorbs the ultraviolet light, projecting a dark shadow image on the fluorescent background.
	e. Portable combustible gas meter.	See Item 2.b.
	a. Portable mercury vapor analyzer—ultraviolet light absorption detector. b. Portable mercury vapor analyzer—gold film amalgamation detector. c. Permanganate impingement .....	See Item 2.c.  A known volume of gas sample is absorbed in potassium permanganate solution. Elemental mercury in the solution is determined using a cold vapor adsorption analyzer, and the concentration of mercury in the gas sample is calculated.

TABLE 7 TO SUBPART IIIII OF PART 63—REQUIRED ELEMENTS OF WASHDOWN PLANS

As stated in §63.8192, your written washdown plan must address the elements contained in the following table:

For each of the following areas . . .	You must establish the following as part of your plan . . .
1. Center aisles of cell rooms ..... 2. Electrolyzers 3. End boxes and areas under end boxes 4. Decomposers and areas under decomposers 5. Caustic baskets and areas around caustic baskets 6. Hydrogen system piping 7. Basement floor of cell rooms 8. Tanks 9. Pillars and beams in cell rooms 10. Mercury cell repair areas 11. Maintenance shop areas 12. Work tables 13. Mercury thermal recovery units 14. Storage areas for mercury-containing wastes	A description of the manner of washdown of the area, and the washdown frequency for the area.